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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/660,484

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Yasuo Tanaka

OKI 262

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23995

7590

09/09/2004

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EXAMINER

FOURSON III, GEORGE R

ART UNIT

PAPER NUMBER

2823

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/660,484

Applicant(s)

TANAKA, YASUO

Examiner

George Fourson

Art Unit

2823

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,7-12 and 14-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 3,7-12 and 14-29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/19/04 has been entered.

Claims 3,7-9,11,12,16,17,19,22-24 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chakravorty '569 in combination with Honda et al and Gilleo et al '788, of record.

The teachings of Chakravorty and Honda et al are applied as stated in the paper mailed 11/19/03.

Neither Chakravorty or Honda et al disclose the specific method of applying heat in the disclosed heating of the encapsulant film.

Gilleo et al discloses heating of a preform layer by direct heating of the wafer to heat a perform on the wafer surface (col.5, lines 50 – col.6, line 13). It would have been within the scope of one of ordinary skill in the art to employ the method of Gilleo et al according to its disclosed intended purpose to enable heating of the encapsulant layer of the process suggested by combination of the teachings of Chakravorty '569 and Honda et al. Prior heating of the wafer would have been suggested to one of ordinary skill in the art because heating of both the preform and the wafer are disclosed as necessary and separating the step into two steps would achieve the step of heating the wafer and encapsulating material. Further, heating of the wafer occurs prior to heating of the encapsulant when heat is applied through the wafer. Gilleo discloses effects of both top and bottom heating of the encapsulant layer in the cited portion.

Claims 10 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chakravorty '569 in combination with Honda et al and Gilleo et al '788, of record, as applied to claims 3,7-9,11,12,16,17, 19,22-24 and 27-29 above, and further in view of Teranuma et al '217.

Teranuma et al is applied as stated in the office action mailed 11/19/03 as providing motivation to enable formation of encapsulant layer 312 over wafer 301 to be performed and to prevent formation of air bubbles (col.11, lines 15-17).

Claims 14,20 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chakravorty '569 in combination with Honda et al and Gilleo et al '788, of record, as applied to claims 3,7-9,11,12,16,17, 19,22-24 and 27-29 above, and further in view of Tsukagoshi et al '728.

Tsukagoshi et al '728 is applied as stated in the paper mailed 11/19/03 as providing motivation to enable formation of encapsulant layer 312 and to provide the advantages stated in the office action mailed 11/19/03.

Claims 15,21 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chakravorty '569 in combination with Honda et al and Gilleo et al '788, of record, as applied to claims 3,7-9,11,12,16,17, 19,22-24 and 27-29 above, and further in view of Komiyatani et al '915.

Komiyatani et al is relied on as stated in the paper mailed 11/19/03 as providing motivation to enable formation of encapsulant layer 312 and to prevent void generation (col.5, lines 24-25).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (571) 272-2800. See MPEP 203.08.

Art Unit: 2823

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner George Fourson whose telephone number is (571)272-1860. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri, can be reached on (571)272-1855. The fax number for this group is (571)273-0224 and the customer service number for group 2800 is 571-272-2815. Updates can be found at <http://www.uspto.gov/web/info/2800.htm>.



George Fourson
Primary Examiner
Art Unit 2823

GFourson
September 6, 2004